

## **RESEARCH PROBLEM STATEMENT #DC-505**

### **I – Problem Title**

Increase the Use of Construction By-Products in Transportation Projects (RD-07)

### **II – Research Problem Statement**

The Department generates large volumes of waste materials when constructing transportation projects. Statute requires the Department to divert 50% of solid wastes from landfills (Statutes of 2000 Chapter 764 (AB 75 Strom-Martin) of the Public Resources Code). How can the Department maximize its recycling efforts for the solid waste debris generated from highway construction and maintenance projects?

### **III – Objective**

- \* Complete a synthesis of practices by other DOTs with regard to resource conservation and recycling efforts.
- \* The synthesis of practice will help the Department determine when other DOTs have found it beneficial to reuse construction by-products.
- \* Currently, most construction by-products are considered to be waste and the contractor's property to be disposed of. Oftentimes the contractor will find a recycler that wants the waste and the contractor will profit from selling it to them.
- \* If the Department determines that this waste is valuable in the sense that the Department could reuse it within the construction project that generated it, or for another transportation project, the Department could develop another process to handle it.
- \* Not only will the Department benefit from keeping valuable resources available for the Department's projects, the Department will be better a better steward of the world's finite resources.

### **IV – Background**

Construction by-products are currently the responsibility of the contractor to dispose of. Often the contractor finds a recycler that wishes to purchase the construction waste and the contractor profits from its sale. In this situation the Department's waste is no longer waste, but is now a valuable commodity. The recycler will then sell this commodity to another party for use elsewhere. In essence, one's waste is another's profit. The Department needs to determine if it is giving away a valuable commodity.

### **V – Statement of Urgency and Benefits**

- \* Determine if the Department is taking advantage of the highest and best use of its existing resources.
- \* The California Integrated Waste Management Board will be supportive of any/all efforts by the Department to reduce, reuse, reclaim and recycle materials to conserve the remaining natural resources.
- \* This research has the potential of reducing the amount of materials going into landfills, reducing the amount of resources the Department purchases for transportation projects and has the potential of reducing project costs.

## **VI – Related Research**

*(Not provided)*

## **VII - Deployment Potential**

The Division of Design, as the research sponsor, would develop best practices guidance on resource conservation for the Department (including training and outreach programs to market the guidance throughout the state).